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In re Patent Application of

SUGIYAMA et al

Atty. Ref.: 2635-61; Confirmation No. 4440

Appl. No. 09/098,730

Group: 1743

Filed: June 18, 1998

Examiner: T. Tung

For: MULTILAYERED AIR-FUEL RATIO SENSOR

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August 19, 2003

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

PRELIMINARY REMARKS

Reconsideration and allowance in view of the following remarks are respectfully requested. These remarks accompany a Request for Continued Examination (RCE).

The invention relates to multilayered air-fuel ratio sensors of the sort which are used to control the operation of an internal combustion engine. In of air-fuel ratio sensors of the sort to which the invention pertains, a series of substrate layers, including at least one solid electrolytic substrate layer and at least one insulating substrate layer, are laminated together. Various ones of the layers have cavities formed in them. A reference gas (e.g., air) is introduced into one such cavity, and gas being measured (e.g., exhaust gas) is introduced into another such chamber. Appropriate electrodes are formed on opposite surfaces of the electrolytic substrate layer and, by measuring one or more electrical parameters such as current flow or voltage across the electrolytic substrate layer between the electrodes, various